MONGOOSE.

AFRICA: SOUTH AFRICA. Reference has been made already to depredations by the Grey Mongoose and the Marsh Mongoose.

The Cape Grey Mongoose ([13]: p. 72) at the Provincial Wild Life Farm, at DeHoop, is responsible for destroying many waterfowl nests.

SUDAN. Sweeney, at Lake Keilek, in March 1953, found the feathers and bones of a small wader, which was not identified, in the stomach of a Marsh Mongoose.

(To be continued)

Geographical variation in the Black Woodpecker

by K. H. Voous

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The Black Woodpecker, *Dryocopus martius*, has a characteristically palaearctic distribution, ranging continuously from the shores of the Pacific Ocean almost to those of the Atlantic. Geographical variation in this huge area is very small. Apart from an isolated group of populations in western China, where the birds have a distinctly more glossy plumage and on this account are referred to as to a separate geographical race *khamensis*, the geographical variation consists of differences in body size, expressed in the length of the wing. Dementiev (1939) was the first to summarize details of measurements from which he concluded that a small form inhabiting the southwestern parts of the range should be separated from the main group of continuous northern populations. The populations mainly inhabiting the boreal climatic zone remain rather uniform in their measurements and are known under the name *martius* Linnaeus (1758), type-locality Sweden. According to Dementiev (1939) birds from southern, western and central Europe eastwards to western Poland, also Asia Minor, Caucasia, and northern Iran, represent a group of smaller size for which the subspecific name *pinetorum* from Brehm (1831) is available, with type-locality Black Forest, western Germany. Peters (1948) in the VIth volume of his *Check List of Birds of the World* followed Dementiev in the recognition of the race *pinetorum* and of the range assigned to it.

The present author became interested in the geographical variation of the Black Woodpecker by two different reasons: firstly, in view of the preparative work for a check list of the birds of the Netherlands undertaken by a special committee of the Netherlands Ornithological Union; secondly, to deduce from the known present distribution and geographic variation of the species a hypothesis of the post-glacial history of distribution in Europe, comparable to similar histories previously studied for the Spotted Woodpeckers, the Bullfinch, and the Nuthatches. From 1950 onwards he has been collecting measurements of specimens (reaching a number of 147) in at least 16 museums and private collections, including the museums in Amsterdam, Basel, Bergen (Norway), Bonn, Göteborg, Leiden, London, Oslo and Stavanger.

The results have been summarized in the table of wing measurements and in the accompanying maps 1 and 2, using the distribution map in the *Atlas of European Birds* Voous (1960) as a basis. Other measurements, notably those of the bill and the tail, have proved to be of no use in discovering additional trends of geographical variation.

Table of Measurements of *Dryocopus martius*

Those marked with an ★ are from Dementiev 1939.

Note: measurements taken by Dementiev and by the present author are noteworthily alike; see also map 2.

MALES

region	*variation*	*number of specimens*	*mean*
*Northern Russia	236–257	9	245.2
*Central Russia	240–255	13	246.3
*Western Russia	235–248	7	241.1
*Poland	232–243	5	238.4
Sweden	236–250	23	242.6
Norway	238–245	6	242.6
Germany	233–243	5	237.0
Switzerland	234–242	5	237.7
Vosges Mountains	232–240	4	237.1
Netherlands	231–236	4	234.0

FEMALES

region	*variation*	*number of specimens*	*mean*
*Northern Russia	238, 250	2	244
*Central Russia	233–252	17	240.8
*Western Russia	233–243	10	239.4
*Poland	228–240	3	233.6
Sweden	234–247	16	240.8
Norway	237–247	9	240.3
Germany	225–241	10	234.7
Switzerland	233–237	7	235.1
Vosges Mountains	231–242	6	235.4
Netherlands	230–237	14	233.3

The conclusions appear as follows:

1. The characters of the isolated Chinese populations are confirmed, both as regards the larger size and the deep black gloss of the plumage. These populations therefore must have been isolated for a relatively long time.

2. There is a trend of decreasing size from east to west in the continuous boreal populations over at least 10,000 km., but individual overlap is considerable.

3. The birds from central Europe are on an average of a smaller size, but again, individual overlap is considerable. In this case, however, the geographical differences, which run from Sweden to central Germany, cover a distance of no more than about 500 km.

4. Measurements of the birds from Asia Minor appear intermediate between those from the boreal region and central Europe.

As regards *nomenclature*, there is apparently no justification for the use of different trinominals for central and northern European populations, as the overlap of the theoretical frequency distribution with central European populations covers 43% of the number of Scandinavian males and 40% of Scandinavian females[1]. In the receding tide of trinominal nomenclatorial splitting this situation reflects what systematists are heading for: populations covered by one and the same subspecific name may show certain amounts of geographical variation, mostly of a gradual or a clinal type and often showing a distinct geographical trend. Thus, as many of us hope, the disciplines of the study of geographical variation and of taxonomy (*sensu stricto*) will be driven back to their own fields of competency and will no longer be allowed to cause confusion and misunderstanding in fields which are not their own.

As regards *history of post-glacial distribution:* the present isolated populations in the Iberian and Italian peninsulas and the wide distribution of Black Woodpeckers in southeastern Europe clearly indicate that populations of that species must have survived in southern Europe during the last glacial period. The small-sized central European populations therefore seem to have re-colonized the central European range from the south. The present distribution of this group has unfortunately suffered greatly from the enormous deforestation throughout western Europe and hence has become more or less disintegrated (Voous 1960). The large-sized boreal group on the other hand has come somewhere from the east, probably as a post-glacial Asiatic immigrant. Thus, the small-sized group is wholly comparable to the populations of the European type of Great Spotted Woodpecker (*Dendrocopos major*, subspecies *candidus*, *italiae*, *arduennus*, *anglicus*, and *pinetorum*, in Voous 1947), the small forms of Bullfinch (*Pyrrhula pyrrhula*, subspecies *coccinea*, in Voous 1949) and the brown-breasted Nuthatches (*Sitta europaea*, subspecies *dalmatina*, *harrisoni*, *cisalpina*, *hassica*, *caesia*, *affinis*, in Voous & Van Marle 1953). Similarly the large-sized group of Black Woodpeckers belongs to the same immigrant fauna of eastern origin of which the Siberian forms of *Dendrocopos major* (*major*), *Pyrrhula pyrrhula* (*pyrrhula*), and *Sitta europaea* (*europaea*) at present living throughout Russia and Scandinavia also form integrant parts.

Although, according to this theory the small-sized and large-sized

[1] According to statistical calculations kindly undertaken by Prof. Dr. J. P. Van Rooyen (Free University, Amsterdam), for which the author is most thankful.

population groups of Black Woodpecker are of different post-glacial origins, still they have to be treated on purely taxonomic grounds under one and the same subspecific name.

Figure 1. Distribution of *Dryocopus martius* and the average wing lengths of males. Figures with an ★ are taken from Dementiev 1939.

Figure 2. Distribution of *Dryocopus martius* in Europe and the average wing lengths of males. Figures with an ★ are taken from Dementiev 1939.

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The Evolutionary Significance of Reversionary Aberrations in the Bullfinch, *Pyrrhula pyrrhula* Linnaeus

by L. Horávth

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Even at a cursory glance one may observe abnormalities in the plumage of the bullfinch which deserve a thorough investigation. These aberrations are of colour, pattern and the relative size of the rectrices and remiges. I must emphasise that these aberrations may be arranged in groups. This may be expressed more exactly by saying that certain colour and pattern deviations are associated with differences in the relative length of the wing and tail feathers. Considerations like these lead me to the conclusion that these aberrations or variants have an atavistic or reversionary significance and provide data of the phylogeny of the species.

The starting point in the sequence of ideas for the verification of this assumption is the indisputable fact that if aberrations occur in a species, of a type which are found as normal characters in another species of the same genus, then the aberration denotes a relationship between the two species, either by indicating that they descended from a common ancestor, or that the progenitor of the species displaying this aberration is the one which possesses it as a normal character.

After this outline of the principle, I will give the data of the aberrant specimens. I examined a total of 66 birds; 36 males and 30 females. Aberrant specimens occurred only in the males. Of these 33 were of the nominate form, one of the race *P. p. europea* Vieillot, one of the race *P. p. rossikowi* Derjugin and Bianchi and one of the race *P. p. cineracea* Cabot. Of the 33 birds of the nominate race, 32 originated from Hungary, collected between 1957–60 and one was from the vicinity of Voronesh, U.S.S.R. The aberrant specimens were all nominate birds from Hungary as follows:—

1/59.1595.1	Csomád, near Budapest, 22.XI.1958.
2/59.1593.1	Alsógöd, near Budapest, 15.II.1959.
3/60.93.1	Adony, Transdanubia, 2.XII.1959.
4/60.151.1	Gyöngyös, Mátra Mts. 6.XII.1959.
5/60.152.1	Budapest, 26.XII.1959.
6/60.87.1	Szentendre, in Pilis Mts. 27.XII.1959.
7/60.153.1	Diósjenö, Börzsöny Mts. 19.I.1960.
8/59.1599.1	Szigetmonostor, near Bp. 8.II.1959.
9/60.91.1	Adony, Transdanubia, 12.XI.1959.
10/60.154.1	Szigetmonostor, near Bp. 10.I.1960.
11/59.1594.1	Budapest. 1.II.1959.
12/60.97.1	Budapest. 9.I.1960.
13/60.155.1	Diósjenö, Börzsöny Mts. 20.I.1960.
14/60.156.1	Diósjenö, Börzsöny Mts. 21.I.1960.